

CLAIMS

1. An improved method of making an immobilized enzyme comprising (a) treating an immobilization support with an aqueous solution comprising a cross-linking agent and polymeric aldehyde species and active centre species to produce a modified support; (b) isolating said modified support; (c) treating an enzyme solution with said modified support to produce said immobilized enzyme, the improvement comprising treating said aqueous solution of cross-linking agent with an effective amount of a purifying agent to reduce the amount of said polymeric aldehyde species and other active centre species.
2. An improved method of making an immobilized enzyme comprising (a) treating an immobilization support with an aqueous enzyme solution to produce an adsorbed immobilized enzyme; (b) isolating said adsorbed immobilized enzyme; and treating said adsorbed immobilized enzyme with an effective amount of an aqueous solution comprising a cross-linking agent and polymeric aldehyde species and active centre species to produce said immobilized enzyme, the improvement comprising treating said cross-linking agent with an effective amount of a purifying agent, to reduce the amount of said polymeric aldehyde species and other active centre species.
3. A method as defined in claim 1 wherein said aqueous solution of cross-linking agent is pre-treated with said purifying agent.
4. A method as defined in claim 1 wherein said cross-linking agent is glutaraldehyde.
5. A method as defined in claim 2 wherein said cross-linking agent is glutaraldehyde.
6. A method as defined in claim 3 wherein said cross-linking agent is glutaraldehyde.
7. A method as defined in claim 1 wherein said immobilization support is selected from the group consisting of a natural or synthetic activated carbon material and a siliceous material selected from natural or synthetic zeolites, natural or synthetic sodium aluminosilicate, amorphous aluminosilicate and silica gel.

8. A method as defined in claim 2 wherein said immobilization support is selected from the group consisting of a natural or synthetic activated carbon material and a siliceous material selected from natural or synthetic zeolites, natural or synthetic sodium aluminosilicate, amorphous aluminosilicate and silica gel.
9. A method as defined in claim 3 wherein said immobilization support is selected from the group consisting of a natural or synthetic activated carbon material and a siliceous material selected from natural or synthetic zeolites, natural or synthetic sodium aluminosilicate, amorphous aluminosilicate and silica gel.
10. A method as defined in claim 4 wherein said immobilization support is selected from the group consisting of a natural or synthetic activated carbon material and a siliceous material selected from natural or synthetic zeolites, natural or synthetic sodium aluminosilicate, amorphous aluminosilicate and silica gel.
11. A method as defined in claim 1 wherein said purifying agent is an activated carbon.
12. A method as defined in claim 2 wherein said purifying agent is an activated carbon.
13. A method as defined in claim 3 wherein said purifying agent is an activated carbon.
14. A method as defined in claim 4 wherein said purifying agent is an activated carbon.
15. A method as defined in claim 1 wherein said enzyme is an enzyme selected from the group consisting of amylase, glucoamylase, cellulase, xylanase, glucose isomerase, or any other group 3 hydrolase.
16. A method as defined in claim 2 wherein said enzyme is an enzyme selected from the group consisting of amylase, glucoamylase, cellulase, xylanase, glucose isomerase, or any other group 3 hydrolase.
17. A method as defined in claim 3 wherein said enzyme is an enzyme selected from the group consisting of amylase, glucoamylase, cellulase, xylanase, glucose isomerase, or any other group 3 hydrolase.

18. A method as defined in claim 4 wherein said enzyme is an enzyme selected from the group consisting of amylase, glucoamylase, cellulase, xylanase, glucose isomerase, or any other group 3 hydrolase.
19. A method as defined in claim 5 wherein said enzyme is an enzyme selected from the group consisting of amylase, glucoamylase, cellulase, xylanase, glucose isomerase, or any other group 3 hydrolase.
20. A method as defined in claim 6 wherein said enzyme is an enzyme selected from the group consisting of amylase, glucoamylase, cellulase, xylanase, glucose isomerase, or any other group 3 hydrolase.

10